



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

## GEOGRAPHICAL PUBLICATIONS

### (Reviews and Titles of Books, Papers, and Maps)

For key to classification see "Explanatory Note" in the July number, pp. 77-81

#### NORTH AMERICA

##### UNITED STATES

##### South-Central States

HANEY, L. H., edit. **Studies in the industrial resources of Texas.** 105 pp.; maps, diags. *Bull. Univ. of Texas*, 1915, No. 3. Austin, 1915.

The detailed work on this bulletin was done largely by undergraduate students of the University of Texas. The principal topics treated are: soil belts, climate, population, crops, lumber, irrigation, railways, banks and the wealth of Texas. With so many topics, any intensive study is, of course, precluded in a pamphlet of about one

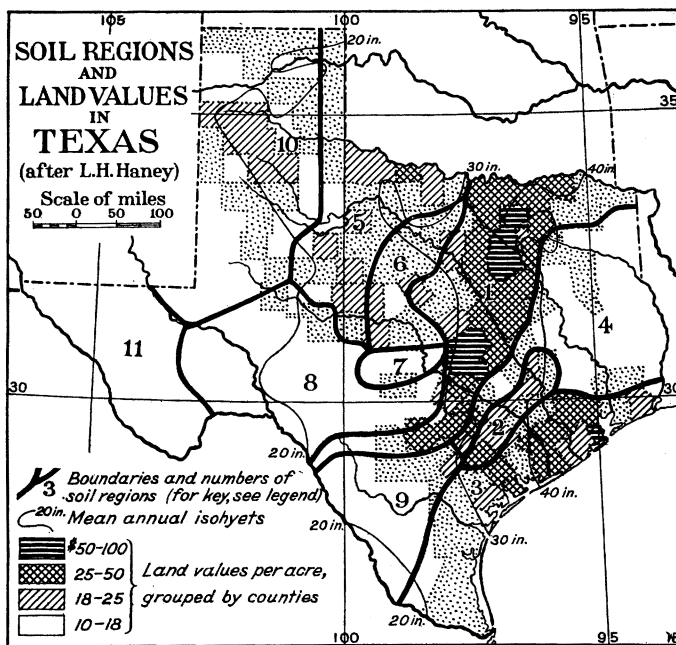


Fig. 1.—Map of Texas showing the relation of land values to soil regions (after Fig. 1, *Bull. Univ. of Texas*, 1915, No. 3). Scale, 1:14,600,000.

1. Black land belt (Houston black clay).
2. Central Neocene area (black sandy loam).
3. Coast prairie (Houston black clay).
4. East Texas timber belt (sands and sandy loam).
5. Permian plains (red loam prairie soils).
6. Carboniferous area (sands and black clays, underlain by sandstone and conglomerates).
7. Llano country (granitic sand, Crawford black clay, and fine red sandy soil).
8. Edwards plateau (Crawford stony clay and red-brown soil of limestone derivation).
9. Tertiary southwest (brown sands and sandy loams, and brown and black clays).
10. Staked Plains (fine sandy loams, etc.).
11. Trans-Pecos area (brown sandy loams).

hundred pages. Yet the bulletin will be of interest to the people of the state who wish a bird's-eye view of its economic problems, and the numerous correlations of life with earth factors make it of value to geographers.

Ten soil provinces are named and mapped (see adjoining map, which should be compared with R. H. Loughbridge's map of the agricultural divisions of the state in the

Tenth Census (for 1880) reports, Vol. 5, opp. p. 671, and R. T. Hill's map of the physiographic provinces of Texas, Pl. 1, *U. S. Geol. Surv. 21st Annual Rept. (for 1899-1900)*, Part VII, and Fig. 1, *U. S. Geol. Surv. Topogr. Folio No. 3*). Of the soil provinces the "black belt," which is continued in Mississippi and Alabama, is the most productive and shows the highest yields of cotton and corn, the leading crops of the state. Several climatic maps are given which illustrate the great climatic diversity of the state. No county having an average land value of over \$18 per acre lies west of the 20-inch rainfall line. The long growing season and the moisture in the humid region are some factors that account for the high cotton production of Texas. The timber growth varies from the cypress of the humid and hot eastern country to the cactus of the arid western part, and the timber belts roughly reflect the rainfall. Irrigation shows two responses: the low-lying rice fields of the southeastern section, and the irrigation to supply an absence of rainfall in the dry section.

F. V. EMERSON.

— **Houston, Texas, Development of inland ocean port at.** Map, diagrs., ills. *Engineering News*, Vol. 75, 1916, No. 21, pp. 978-980.

WEGEMANN, C. H. **A reconnaissance in Palo Pinto County, Texas, with special reference to oil and gas.** Map. *U. S. Geol. Surv. Bull. 621-E*, pp. 51-59. Washington, 1916.

#### *Western States*

AYER, MRS. E. E., transl. **The memorial of Fray Alonso de Benavides, 1630.** Annotated by F. W. Hodge and C. F. Lummis. xiii and 309 pp.; ills., index. Privately printed, Chicago, 1916. \$10.00. 9½ x 6½.

The early archives of Spain in the Indies are rich in material of geographic value, but it is seldom available in such illuminated and attractive guise as in this volume. The original text of Benavides' precious memorial is accompanied by a remarkably faithful translation, annotated with care and detail. Admirable photographic illustrations vivify the narrative. The only criticism of the outlay of the book is one that must naturally occur to the geographer: the lack of any form of map for an area where location plays an important part.

Benavides was one of the pioneer missionaries of New Mexico. Together with twenty-six friars he entered the province assigned him as Father Custodian in 1622. He himself devoted attention principally to the Apache of the Upper Gila region, and the most detailed section of his memorial naturally pertains to this "huge nation." More briefly the memorial describes the other nations of the old "kingdom" of New Mexico that began north of Santa Barbara in Chihuahua and gives a general account of the character of the territory, "the fertility of the land," "fish," "game," "rigor of the temperature." In the concluding portion of the narration Benavides advances a plan of considerable geographic interest, viz., the advisability of creating a port in Matagorda Bay (Espíritu Santo) as terminal for a new route to obviate the long and difficult overland journey from New Spain. Half a century later foreign aggressions in the Gulf of Mexico led to active interest in the proposal.

The importance of the memorial was recognized from the moment of its appearance. Within four years after its publication in 1630 it was translated into four other languages. Of recent years the work has appeared in modernized Spanish form, and two English translations, one of them incomplete, have been produced in this country.

REED, W. G. **Report of the meteorological station at Berkeley, California, for the year ending June 30, 1914.** Maps, diagrs., ills. *Univ. of California Publs. in Geogr.*, Vol. 1, 1916, No. 9, pp. 373-439.

REED, W. G., AND M. K. WHITE. **Rainfall data of Berkeley, California, II.** Diagrs. *Univ. of California Publs. in Engin.*, Vol. 1, 1916, No. 6, pp. 83-116.

What one enthusiastic and competent meteorologist can do with what are often considered "dry" meteorological data has been well illustrated during the past few years by the publications of Mr. William G. Reed, until lately of the University of California. The clean-cut, systematic, and above all *interesting* report of the Berkeley meteorological station during the year ending June 30, 1914, comes as a refreshing relief among the many voluminous tabulations of meteorological data which form a large part of every meteorologist's mail and which are in so many cases mere numerical data, without life, without real interest, without discussion. The Berkeley report is an excellent presentation of effective meteorological work, well done. In addition to the routine observations, a special study has been made of frost conditions in Berkeley and of other matters of local interest. Several diagrams emphasize the more important meteorological facts. We note, with special satisfaction, Mr. Reed's study of rainfall by cyclones, which seems to

us an essential element in any compilation and discussion of rainfall data, especially in extra-tropical countries. A selected series of simplified maps illustrates the cyclonic conditions which determined the rainfall at Berkeley in nine cases.

The second publication, on the rainfall data of Berkeley, supplements an earlier discussion by Mr. Reed, published in 1915 (*Univ. of California Publs. in Engin.*, Vol. 1, No. 5). The former report deals with the rainfall observations made by the University of California as a co-operative observing station of the U. S. Weather Bureau. The second report summarizes the data obtained from the recording rain-gage maintained by the Department of Civil Engineering since 1911 and deals with rain intensity. Diagrams are given showing a comparison of various intensity curves which have been proposed for the vicinity of San Francisco and for the severity of a storm that may reasonably be expected to occur once in five years, once a year, twice a year, and four times a year. Such data are obviously of great importance to engineers as well as to meteorologists. It may be noted that Mr. Reed has given a summary of the two publications on the rainfall data of Berkeley in the *Monthly Weather Review* for March, 1916, pp. 123-127.

R. DEC. WARD.

ALDEN, W. C. **Glaciers of Glacier National Park.** 48 pp.; maps, diagrs., ills. Dept. of the Interior, Washington, D. C., 1914.

ALLEN, G. F. **The forests of Mount Rainier National Park.** 33 pp.; ills., index. Dept. of the Interior, Washington, D. C., 1916. [A splendidly illustrated contribution to a series whose admirable treatment might with advantage be extended to geographic regions. The full description of the floristic characters of the National Parks will prove valuable to scientist as well as tourist.]

BAGLEY, C. B., edit. **Journal of occurrences at Nisqually House, 1833.** *Washington Hist. Quart.*, Vol. 6, 1915, No. 3, pp. 179-197; No. 4, pp. 264-278; Vol. 7, 1916, No. 1, pp. 59-75; No. 2, pp. 144-167. Seattle. [First publication of a daily record kept at a subsidiary post of the Hudson Bay Company on Puget Sound from 1833 to 1869. The first instalment has already been listed in the *Bull. Amer. Geogr. Soc.*, Vol. 47, 1915, p. 895.]

BASTIN, E. S., AND J. M. HILL. **Preliminary report on the economic geology of Gilpin County, Colorado.** Maps, diagr., ills. *U. S. Geol. Surv. Bull.* 620-M, pp. 295-323. Washington, 1916.

BRADLEY, W. C., G. C. BROWN, F. L. LOWELL, AND R. P. McLAUGHLIN. **Mines and mineral resources of the counties of Fresno, Kern, Kings, Madera, Mariposa, Merced, San Joaquin, and Stanislaus.** 220 pp.; diagrs., ills., index, bibliogr. From *Rept. of State Mineralogist, 1913-1914*. California State Mining Bur., San Francisco, 1915.

BRADLEY, W. W. **Mines and mineral resources of the counties of Colusa, Glenn, Lake, Marin, Napa, Solano, Sonoma, Yolo.** 208 pp.; map, diagrs., ills., index, bibliogr. From *Rept. of State Mineralogist, 1913-1914*. California State Mining Bur., San Francisco, 1915.

— **Bridge washouts in the desert.** Ills. *Engineering News*, Vol. 75, 1916, No. 19, pp. 873-874.

BROWN, G. C. **Mines and mineral resources of Shasta County, Siskiyou County, and Trinity County.** 192 pp.; diagrs., ills., index, bibliogr. From *Rept. of State Mineralogist, 1913-1914*. California State Mining Bur., San Francisco, 1915.

BUTMAN, C. H. **The Sun Temple in Mesa Verde Park.** Ills. *Scientific American Suppl.*, No. 2106, Vol. 81, 1916, May 13, pp. 312-313.

— **Caliche roads: A new type of construction in Arizona.** Ills. *Engineering News*, Vol. 75, 1916, No. 18, p. 532.

CAMP, C. L. **Notes on the local distribution and habits of the amphibians and reptiles of southeastern California in the vicinity of the Turtle Mountains.** Map, ills. *Univ. of California Publs. in Zool.*, Vol. 12, 1916, No. 17, pp. 503-544. [“The Turtle Mountain work was undertaken for the purpose of studying a definite fauna in an arid locality, where animal habitats are reduced nearly to simple topographical terms.”]

CANNON, MILES. **Fort Hall on the Saptin River.** *Washington Hist. Quart.*, Vol. 7, 1916, No. 3, pp. 217-232. [Early fort on the upper Snake River near present Pocatello, Idaho.]

JONES, O. M. **Bibliography of Colorado geology and mining, with subject index from the earliest explorations to 1912.** 493 pp.; index. *Colorado State Geol. Surv. Bull.* 7. Denver, 1914.

LOWELL, F. L. **Mines and mineral resources of Del Norte County, Humboldt County, and Mendocino County.** 59 pp.; maps, diagrs., ills., index. From *Rept. of State Mineralogist, 1913-1914*. California State Mining Bur., San Francisco, 1915.

LUPTON, C. T. **Oil and gas near Basin, Big Horn County, Wyoming.** Maps. *U. S. Geol. Surv. Bull.* 621-L, pp. 157-190. Washington, 1916.

MARTIN, BRUCE. **The Pliocene of middle and northern California.** *Univ. of California Publ. Bull. Dept. of Geol.*, Vol. 9, 1916, No. 9, pp. 215-259.

— **National Park Conference held at Berkeley, California, March 11, 12, and 13, 1915, Proceedings of the.** 166 pp.; diagrs. Dept. of the Interior, Washington, 1915.

REED, W. G. **Rainfall data of Berkeley, Cal.** Diagrs. *Monthly Weather Rev.*, Vol. 44, 1916, No. 3, pp. 123-127. [See comment at end of review above under Reed, W. G.]

SULLY, J. M. **The story of the Santa Rita copper mine.** ills. *Old Santa Fe*, Vol. 3, 1916, No. 10, pp. 132-149. Santa Fe, N. M. [The discovery of the Santa Rita mines in 1800 "marks the beginning in history of an industry which has raised the state of New Mexico from the bottom of the list in 1910 to sixth place in point of copper production among all the states of the Union."]

SYKES, GODFREY. **The reclamation of a desert.** Map, ills. *Geogr. Journ.*, Vol. 46, 1915, No. 6, pp. 447-457. [Salton Sink region. Contains account of overflow of Colorado River in 1905.]

TUCKER, W. B. **Mines and mineral resources of Amador County, Calaveras County, and Tuolumne County.** 180 pp.; diagrs., ills., index. From *Rept. of State Mineralogist, 1913-1914*. California State Mining Bur., San Francisco, 1915.

YOUNG, R. F. **Relation of precipitation to stream flow in Montana.** Map. *Monthly Weather Rev.*, Vol. 44, 1916, No. 2, pp. 84-86.

(1) *Cooperstown*, (2) *Montpellier*, (3) *Oakdale*, (4) *Paulsell*, (5) *Trigo, California, sheets*. [*Topographic map of the United States.*] 1:31,680. Surveyed in 1913; editions of 1915 and 1916. U. S. Geological Survey, Washington, D. C. [Examples of maturely dissected, fine-textured portions of the floor of the Great Valley of California bordering lower courses of Stanislaus and Tuolumne Rivers. Among special features well represented are river terraces; a typical complicated shore-line of submergence where the waters of an artificial reservoir have invaded the branching ravines between the close-set hills (Paulsell sheet); and meandering arroyos of striking form.—D. W. J.]

(1) *Ripon*, (2) *Thalheim*, (3) *Westley*, (4) *Westport, California, sheets*. [*Topographic map of the United States.*] 1:31,680. Surveyed in 1913; editions of Sept. and Oct., 1915. U. S. Geological Survey, Washington, D. C. [Typical example of meandering courses of the Stanislaus, Tuolumne, and San Joaquin Rivers on the flat floor of little-dissected portions of the Great Valley of California. Good river terraces are well shown on the Thalheim and Westport sheets, while the Westley and Westport sheets include admirable representations of the complicated meanders and cut-offs found along the lower San Joaquin.—D. W. J.]

#### MEXICO AND CENTRAL AMERICA

MACDONALD, D. F. **Some engineering problems of the Panama Canal in their relation to geology and topography.** 88 pp.; maps, diagrs., ills., index, bibliogr. *Bur. of Mines Bull.* 86. Dept. of the Interior, Washington, 1915.

This report aims to discuss, from the viewpoint of the mining geologist, the bearing of topographic and geologic conditions on certain problems that arose in the construction of the Panama Canal. It is in other words a discussion of the engineering geology.

The author points out clearly how important it is for the engineer to know the distribution and structure of the different rock types, in the area of his work, because of their bearing on excavation cost and methods, stability of dam and lock foundations, etc.

He therefore takes up first briefly the topography, climate, and drainage conditions, pointing out the bearing of each on this particular problem. This is followed by an account of the geology and especially the relation of each formation to the work of canal construction. The rocks are all of Tertiary or Pleistocene age, but include both igneous and sedimentary areas, and many are much disintegrated by weathering, so that they wash and slide easily.

This leads to a consideration of the sources of materials for constructor's work along the canal, and we see that these ranged from soft mud used for filling swamps or spaces between loose stone to hard igneous rock employed for concrete. The rock formations on

which the large Gatun Dam and the locks were built are given special attention and are shown to be safe.

A considerable portion of the bulletin, however, is given up to a most interesting discussion of the slides in the great Culebra cut, in connection with which the author analyzes in much detail the conditions causing slides and gives a table showing the safe angle of slope for different kinds of rock and structure. The Culebra slides were of four distinct types, the author believes, and he classifies them as: (1) structural breaks and deformations; (2) normal, or gravity, slides; (3) fault-zone slides; and (4) surface erosion. In all cases, no doubt, ground water played an important rôle in softening the rock and lowering its coherence.

The maintenance of a geologist at the Panama Canal, as on the Catskill aqueduct, shows that the engineer is coming to recognize that in great undertakings of this sort a knowledge of earth science is important. H. RIES.

AROSEMENA, J. D., edit. **Panamá en 1915.** 219 pp.; maps, diagrs., ills. Morales & Rodriguez, [Panama]. 15 x 10½. [Contains chapters on the history of Panama, the Canal, and on recent progress in social and industrial affairs; also a gazetteer of the constituent provinces. The greater number of the articles appear both in Spanish and English.]

ARREOLA, J. M. **Catálogo de las erupciones antiguas del volcán de Colima.** *Mem. y Rev. de la Soc. Científica "Antonio Alzate,"* Vol. 32, 1915, No. 11-12, pp. 443-481. Mexico.

BOYLE, W. F. **Puerto Cortes, [Honduras].** *Suppl. to Commerce Repts., Ann. Series, 1916, No. 31a, pp. 10-12.* Bur. of Foreign and Domestic Commerce, Dept. of Commerce, Washington, D. C.

— **Canale di Panama, Commercio centro-americano attraverso il.** *Rapporti dei RR. Agenti diplomatici e consolari N. 24, pp. 4-5.* Direz. Gen. degli Affari Comm., Minist. degli Affari Esteri, Rome, December, 1915.

— **Costa Rica, República de: Anuario Estadístico, Vol. 10, Año 1914.** 139 pp.; index. San Jose, 1915. [The population of Costa Rica is given as 420,179 on Dec. 31, 1914. No census has been taken since 1892, and these figures are based on the increase indicated by the returns for births and deaths, election registration, etc.]

DE LAUNAY, L. **L'industrie au Mexique.** ills. *La Nature, No. 2232, 1916, July 8, pp. 17-21.*

DYER, F. J. **Ceiba.** *Suppl. to Commerce Repts., Ann. Series, 1916, No. 31a, pp. 5-9.* Bur. of Foreign and Domestic Commerce, Dept. of Commerce, Washington, D. C. ["Ceiba consular district embraces the richest agricultural section of Honduras."]

MAUDSLAY, A. P. **The valley of Mexico.** Map, ills. *Geogr. Journ., Vol. 48, 1916, No. 1, pp. 11-23.*

NOTARI, —. **Alcuni dati sul commercio della repubblica di Guatemala.** 25 pp. (*Boll. della*) *Direz. Gen. degli Affari Commerciali, 1916, No. 1.* Minist. degli Affari Esteri, Rome.

PIZARRO, M. T. **Cantidad de agua caída en la hacienda de Acozac, Municipalidad de Yxtapaluca, Distrito de Chalco, Estado de México, durante un periodo de 20 años, contados desde 1894 a 1913.** *Mem. y Rev. de la Soc. Científica "Antonio Alzate,"* Vol. 32, 1915, No. 11-12, facing p. 508. Mexico. [A graph.]

SANDBERG, H. O. **Ancient temples and cities of the New World: Tikal [Guatemala].** Map, diagrs., ills. *Bull. Pan American Union, Vol. 43, 1916, No. 3, pp. 319-337.*

SANDBERG, H. O. **Central America of today: Costa Rica.** ills. *Bull. Pan American Union, Vol. 42, 1916, No. 5, pp. 605-625.*

SANDBERG, H. O. **Central America of today: Honduras.** ills. *Bull. Pan American Union, Vol. 42, 1916, No. 1, pp. 32-52.*

TOWNSEND, C. H. **Voyage of the "Albatross" to the Gulf of California in 1911. (Scientific results of the expedition to the Gulf of California in charge of C. H. Townsend, by the U. S. Fisheries steamship "Albatross" in 1911, Commander G. H. Burrage, U. S. N., commanding: I).** Map, ills. *Bull. Amer. Museum of Nat. Hist., Vol. 35, 1916, Art. 24, pp. 399-476.* [The expedition was undertaken in March and April, 1911, in co-operation with the U. S. Bureau of Fisheries by the American Museum of Natural History, the New York Zoological Society, the New York Botanical Garden, and the U. S. National Museum. "The Bureau of Fisheries desired information respecting the fish and fisheries and the oceanographical features of Lower California and the Gulf region, referring especially to the desirability of further knowledge regarding the

supply of edible fishes, oysters, and turtles, with a view to inaugurating a fish trade within the Southwestern states." The present publication contains the narrative account. The hydrographic observations included 27 soundings, which are enumerated, with complete data, in Appendix C (pp. 462-475) and shown in the map, 1:5,000,000, accompanying the report.]

WAITZ, PAUL. "Absteigende Eruptionswolken" bei den Ausbrüchen des Jorullo (1759) und des Ceboruco (1870) in Mexiko. *Zeitschr. für Vulkanologie*, Vol. 2, 1915, No. 1-2, pp. 76-82.

WILKINSON, S. L. Honduras. *Suppl. to Commerce Repts.*, Ann. Series, 1916, No. 31a, pp. 1-5, Bur. of Foreign and Domestic Commerce, Dept. of Commerce, Washington, D. C.

WITTICH, ERNESTO. Las salinas de Ojo de Liebre en la bahía de Sebastián Vizcaino, B[aja] C[alifornia]. *Bol. Minero*, Vol. 2, 1916, No. 5, pp. 235-240. Direcc. de Minas y Petróleo, Depart. de Minas, Secr. de Fomento, Colon. e Industr., Mexico. [The observations on these deposits were made during an expedition to Lower California in 1911-12.]

## WEST INDIES

ALFONSO, M. F., AND T. V. MARTINEZ. Cuba before the world. 223 pp.; diags., ill. The Souvenir Guide of Cuba Co., New York, 1915. \$2.00. 11 x 8. [Chiefly a popular book for tourist use but containing some valuable geographical description and statistics not found elsewhere.]

BENJAMINS, H. D., AND J. F. SNELLEMAN, eds. *Encyclopædie van Nederlandsch West-Indië*, Afl. 8: pp. 449-512. Martinus Nijhoff, The Hague; N. V. Boekh. en Drukkerij (voorheen E. J. Brill), Leiden, 1914. Fl. 2. 10½ x 7½. [Deals with all Dutch possessions in the western hemisphere. Of geographical interest in this instalment are the long entries on the Maroni and Nickerie, two of the larger rivers of Dutch Guiana. The work will be completed in ten to fifteen instalments.]

CARROLL, H. K. Conditions in Porto Rico at the beginning of the American occupation. *Rept. of the 33rd Ann. Lake Mohonk Conference on the Indian and other Dependent Peoples*, Oct. 20, 21, and 22, 1915, pp. 139-140.

— Cayman Islands (Jamaica): Report for 1914-15. 13 pp.; map. *Ann. Colonial Repts.* No. 879. London, 1916.

CRAMPTON, H. E. Porto Rico. Ills. *American Museum Journ.*, Vol. 16, 1916, No. 1, pp. 59-70.

DOMINGUEZ, J. V. The language problem [in Porto Rico] and political relations with the United States. *Rept. of the 33rd Ann. Lake Mohonk Conference on the Indian and other Dependent Peoples*, Oct. 20, 21, and 22, 1915, pp. 161-166.

EASTMAN, C. R. The Reversus, a fishing tale of Christopher Columbus. Ills. *Scientific Monthly*, Vol. 3, 1916, No. 1, pp. 31-40. [On fishing with the *Remora*, a sucking fish which attaches itself to its captive, as witnessed by Columbus near Cuba on his voyage of 1494.]

ENGELHARDT, G. P. The Bahamas, coral reefs and coral islands. Ills. *Brooklyn Museum Quart.*, Vol. 1, 1915, No. 4, pp. 201-215.

HAZARD, D. L. Results of observations made at the United States Coast and Geodetic Survey magnetic observatory at Vieques, Porto Rico, 1913 and 1914. 102 pp.; diags. *U. S. Coast and Geod. Surv. Ser. No. 33*. Washington, D. C., 1916.

MACDERMOT, T. H. The King's dominion of the islands: Major and minor West Indian notes. *United Empire*, Vol. 7 (New Series), 1916, No. 3, pp. 207-211; No. 4, pp. 271-276.

MAY, D. W. Agricultural interests and prospects of Porto Rico. *Rept. of the 33rd Ann. Lake Mohonk Conference on the Indian and other Dependent Peoples*, Oct. 20, 21, and 22, 1915, pp. 140-145.

MURRAY, GIDEON. St. Lucia: Report for 1914-15. 12 pp. *Ann. Colonial Repts.* No. 880. London, 1916.

STODDARD, T. L. The Danish West Indies: Keys to the Caribbean. Map. *Amer. Review of Reviews*, Vol. 54, 1916, No. 3, pp. 292-298.

WETMORE, ALEXANDER. Birds of Porto Rico. 140 pp.; map, ill., index, bibliogr. *U. S. Dept. of Agric. Bull. No. 326*. Washington, 1916. [A determination of the economic status of the island birds. Damage to crops by insect pests led to the investigation into the relations between the air fauna and insect fauna.]

YAGER, ARTHUR. **Fundamental social and political problems of Porto Rico.** *Rept. of the 33rd Ann. Lake Mohonk Conference on the Indian and other Dependent Peoples, Oct. 20, 21, and 22, 1915*, pp. 145-153. [Abstracted in the *March Review*, pp. 211-212.]

## SOUTH AMERICA

### BRAZIL

KOEGEL, LUDWIG. **Das Urwaldphänomen Amazoniens: Eine geographische Studie.** xx and 83 pp.; map, bibliogr. J. Lindauersche Univ.-Buchhandlung, München, 1914. M. 2. 9 x 6.

An account of the forest region of the Amazon lowland ("Amazonia") from the standpoint of the geographer. The area treated, embracing a large portion of northern Brazil, together with adjoining parts of Venezuela, Colombia, Ecuador, Peru, and Bolivia, and representing the most extensive tropical lowland on the earth, is one of great physical uniformity. Taken as a whole the surface is practically horizontal, as may be seen from the comparatively low elevations recorded at many points along its western border—e. g. 180 meters at Pongo de Manseriche, more than 3200 kilometers from the mouth of the Amazon. Examined in detail the surface appears roughened, but is nowhere broken by pronounced orographic features. The characteristic type of vegetation is tropical rain-forest.

This lowland forest region stretches from the mouth of the Amazon, with whose drainage basin it is so intimately associated, westward to the foot of the Andes. Its boundaries, as indicated on the excellent accompanying map in 1:7,500,000 and discussed in great detail in the text, are somewhat as follows. In the east, the first large rivers to reach the ocean north and south respectively of the mouth of the Amazon (the Oyapock and the Gurupy) are regarded as separating the Amazon lowland from the adjoining, and floristically similar, coastal lowlands. Toward the north, from the headwaters of the Oyapock westward to Peak F. de Lesseps, mountain ranges for the most part form a natural boundary. From this point to the base of the Andes the line is roughly traced along the courses of the Orinoco and Guaviare Rivers. Here, in the absence of any delimiting physiographic features, vegetational dissimilarities—the distribution of forest and *campo*—are largely employed as criteria in fixing upon the probable limits of the Amazon lowland. Toward the west the lowland forests give way to the mountain forests which clothe the Cordilleran foothills. The transition between the two types of forest is rarely abrupt, and some of the most characteristic lowland species, e. g. the rubber tree (*Hevea brasiliensis*), locally extend far into the mountain area; but the five-hundred-meter isolypse is more or less arbitrarily selected as marking the upper limit of the lowland. Toward the south the boundary between the Amazon lowland and the highlands of central Brazil is not sharply defined; the line is drawn through the zone of the lower waterfalls and stream sources of the southern tributaries of the Amazon. Here again, as in the northwest, the limits of the lowland are taken to coincide with the distribution of the forests, these being superseded southward by *campos*.

As already stated, the characteristic plant formation of the Amazon lowland, taken as a whole, is tropical rain-forest. Yet the physiognomy of the vegetation is not uniform throughout, and particular stress is laid on certain significant dissimilarities. Toward the west luxuriant forests hold undisputed domain, but in the east the forest at its best is less luxuriant than in the west. Furthermore, scattered island-like throughout the eastern section are extensive *campos* ("Campinseln"). These vegetational dissimilarities between east and west are attributed partly to climatic, partly to edaphic factors. Eastward there is a more or less pronounced dry season, while the nature of the substratum and the ground-water relations are such that the level of the water-table fluctuates markedly according to the amount of rainfall. Westward the precipitation appears to be more equally distributed throughout the year, while the interrelation of the various soil conditions is such that the level of the water-table remains more constant and is less affected by seasonal variations in rainfall.

The author's observations and conclusions are based on the examination of all available published data, supplemented by personal correspondence with various contemporary investigators. By no means the least valuable part of the work is a bibliography of the maps and literature dealing with the region, containing more than four hundred titles. As the first comprehensive account of the Amazon lowland in its entirety, this paper, together with its excellent map (which was reviewed in the *Bull. Amer. Geogr. Soc.*, Vol. 47, 1915, pp. 476-477, at the time of its publication in *Petermanns Mitteilungen* with a summary of the present paper), represents a noteworthy contribution to geographical literature.

GEORGE E. NICHOLS.



— **Bahia cacao industry, The.** *South American Journ.*, Vol. 81, 1916, No. 3, pp. 49-50.

DICKIE, (Consul). **Report for the year 1914 on the trade of the consular district of Pernambuco.** 26 pp.; map. *Diplomatic and Consular Repts.*, Ann. Series, No. 5565. London, 1916.

ELLIOTT, L. E. **Old and new São Paulo: The rise of a business city.** Ills. *Pan-American Mag.*, Vol. 22, 1916, No. 5, pp. 295-308. New York.

KEISER, R. L. **Rio Grande Do Sul.** 11 pp. *Suppl. to Commerce Repts.*, Ann. Series, No. 40a. Bur. of Foreign and Domestic Commerce, Dept. of Commerce, Washington, D. C.

MORIZE, H. **The geographic and magnetic survey of the southern part of Brazil.** *Terrestr. Magnét. and Atmosph. Electr.*, Vol. 21, 1916, No. 1, pp. 23-24.

#### PARAGUAY, URUGUAY, ARGENTINA, CHILE

— **Argentine Year Book, The: Tenth edition, 1915-1916.** With short chapters on the Republics of Uruguay, Paraguay, and Chile. xxxii and 406 pp. Robert Grant & Co., Buenos Aires; American agents: Donnell & Palmer, New York, [1916]. 8½ x 5½.

This appears to be a very well compiled handbook. Its contents are compact and accessible. The comparative tables of economic data are particularly useful. One may instance that for the disposition of rural property holdings for 1902 and 1912. Here is shown in concrete form one of the most significant features of recent progress in Argentina, the reduction of the great latifundia. During the ten-year period quoted the number of holdings in the province of Buenos Aires increased by over 50 per cent, the increase being chiefly in the small properties of 10 to 100 hectares at the expense of the estates of over 5,000 hectares. Like changes occurred in Córdoba and Santa Fé. In Pampa Central, the great new field of Argentine expansion, the 624 estates of over 10,000 hectares in 1902 were reduced to 172, while the holdings of 10 to 100 hectares grew from 243 to 3,180.

— **Chile, Anuario Hidrográfico de la Marina de, 1915: Tomo 29.** viii and 439 pp.; maps, diagrs., index. Valparaiso, 1915.

The most important part of this, the 29th annual volume of the Chilean Hydrographic Survey, pertains to studies made along the West Patagonian coast in 1912, accompanied by numerous charts. Valuable geographic material is scattered throughout. Much meteorological material was accumulated: in particular there is a useful description of weather in the northern islands of the Magallanes Territory. At Navarino, one of the islands of the Beagle Channel, exceptionally interesting information was acquired from an Austrian colonist who had resided there for a period of sixteen years. According to this informant the mean temperature of the islands south of Tierra del Fuego is much higher than that of Punta Arenas. In summer "suffocating" heat is experienced, and prolonged drought is frequent, as, for instance, obtained during 1910-11 and caused serious harm to the pastures. During the last seven years of the period covered by this report precipitation appeared to have diminished. The number of rainy days ranged from 100 to 150 per annum. The climate is well suited to sheep farming, the chief resource of the settlers. Their flocks are estimated at about 13,000 head, with 500 cattle. Products are disposed of in the Argentine town of Ushuaia on the mainland. Horticulture flourishes, though, for lack of a market, it is only developed for local needs.

One of the surveys carried out in 1910 briefly reports the progress of the Sociedad Industrial del Aysen. The company, located in the Aysen basin about 45° S. latitude, possesses two *estancias* and in 1910 estimated their sheep at 80,000 head, cattle at 10,000. Most of their employees are drawn from Llanquihue and Chiloé, but there are also a dozen English families contracted for a period of years. The company's main business is done in wool, of which in 1909 about 370,000 pounds were forwarded to Valparaiso. Cattle are also exported to the north, but they go by road. The land journey necessitates entry into Argentine territory, and, as no Chilean custom house exists in this remote region, duty has to be paid on re-entry into the country. This annoyance has led to the export of much of the poorer stock in the form of dried beef, *charqui*.

— **Aconcagua, The first winter ascent of the.** Ills. *Bull. Pan American Union*, Vol. 42, 1916, No. 2, pp. 250-255. [This ascent of the "Giant of the Western World"—Aconcagua has an elevation of 23,000 feet—was undertaken in September, 1915. The summit ridge was reached, but an ice wall prevented the scaling of the last 200 feet to

the actual summit. The mountain has been ascended on four previous occasions, for the first time in 1897. The account is taken from an article by Eilert Lundt in a recent number of *The Standard* of Buenos Aires. The *South American Journal* (Vol. 81, No. 10, 1916) also publishes an account from a report in the *South Pacific Mail*.]

— **Argentina's fuel problem serious.** *The South American*, Vol. 4, 1916, No. 7, p. 163. New York.

BARNABÉ, J. F. **Informe sobre el distrito minero de Tinogasta (Provincia de Catamarca).** 58 pp.; maps, diagrs., ills. *Anales del Minist. de Agric.: Sección Geol., Mineral. y Minería*, Vol. 10, 1915, No. 4. Buenos Aires. [See note on the "Mineral Resources of Argentina" in the *July Review*, p. 62.]

BARNABÉ, J. F. **Los yacimientos minerales de la Puna de Atacama.** 63 pp.; diagrs., ill. *Anales del Minist. de Agric.: Sección Geol., Mineral. y Minería*, Vol. 10, 1915, No. 5. Buenos Aires. [Accompanied by a map of the Puna de Atacama which shows many details not hitherto found on maps of the region. While the photographic reproductions are poor, the subjects are well chosen and give an adequate idea of the types of country. The explanations are least satisfactory and rest upon purely empirical descriptions and opinions. The text is important chiefly because of its up-to-date information on the state of the mines of the Puna.]

— **Buenos Aires, Anuario Estadístico de la Ciudad de:** [Vol.] 24, 1914. 326 pp. Dirección General de Estadística Municipal, Buenos Aires, 1915.

CALVERT, J. S. **Argentina.** 16 pp. *Suppl. to Commerce Repts.*, Ann. Series, 1916, No. 38b. Bur. of Foreign and Domestic Commerce, Dept. of Commerce, Washington, D. C.

— **Chile, Anuario Meteorológico de: Segunda parte (Resúmenes), 1913.** 134 pp.; map, diagrs., ills. *Inst. Central Meteorol. y Geofísico de Chile* [Publ.] No. 15. Santiago, Chile, 1915.

CONDELL, C. F. **Falkland Islands: Report for 1914.** 13 pp.; map. *Ann. Colon. Repts.* No. 872. London, 1916.

DICKSON, J. Q. **The Empire's outpost in the South Atlantic.** Ills. *United Empire*, Vol. 7, N. S., 1916, No. 2, pp. 161-172. [The sheep industry of the Falklands and the whaling of South Georgia are described in some detail.]

ELLIOTT, L. E., AND W. W. RASOR. **Meat export from the Argentine.** Ills. *Pan-American Mag.*, Vol. 22, 1916, No. 5, pp. 309-325. New York.

GANCEDO (HIJO), ALEJANDRO. **Organización política de los Diaguitas.** Ills. *Anales del Museo Nacional de Hist. Nat. de Buenos Aires*, Vol. 27, 1915, pp. 335-352. Buenos Aires. [In the hunt of the jaguar originated the insignia symbolic of the despotic organization of the Diaguitas. These tribes occupy the mountainous territory of Argentina from the valley of Lerma to Mendoza, with the exception of the Sierra de Córdoba. They are described comprehensively, along with other ancient and modern tribes of the region, in a scholarly work containing a great amount of geographic material by Éric Boman: *Antiquités de la Région Andine*, 2 vols., Paris, 1908.]

HUERGO, EDUARDO. **Rectificación y canalización del Riachuelo.** *Bol. de Obras Públicas de la República Argentina*, Vol. 12, 1915, No. 4-6, pp. 172-177. Buenos Aires.

— **Nitrate results in 1915.** *South American Journ.*, Vol. 81, 1916, No. 3, pp. 41-43.

PEDROSO, FERNANDO DE. **Informe sobre el estado de la exploración de los yacimientos petrolíferos del distrito minero de Comodoro Rivadavia.** 95 pp.; maps, diagrs., ills. *Dir. General de Minas, Geol. e Hidrol. Bol.* No. 6, Ser. A. Minist. de Agric., Buenos Aires, 1915.

PEÑA, N., M. WHITTAKER, C. ZÚÑIGA, AND E. MARTÍNEZ. **Valors. horars. de los elementos meteorológ., temperat. del suelo y dispersión electr. en Santiago 1914.** 91 pp.; diagrs. *Inst. Central Meteorol. y Geofísico de Chile* [Publ.] No. 17. Santiago, Chile, 1915.

WHITTAKER P., MIGUEL. **Valores horar. de elementos meteorológicos en Los Andes 1911 y 1912.** 81 pp. *Inst. Central Meteorol. y Geofísico de Chile* [Publ.] No. 16. Santiago, Chile, 1915. [The publication in *extenso* of hourly observations was initiated by volumes giving values for Santiago (1911-13) and Punta Arenas (1911-12). The above volume pertains to Santa Rosa de los Andes, a particularly interesting station situated at the foot of the Aconcagua massif.]

WILEY, S. H. **Paraguay.** 8 pp. *Suppl. to Commerce Repts.*, Ann. Series, 1916, No. 45a. Bur. of Foreign and Domestic Commerce, Dept. of Commerce, Washington, D. C.

## EUROPE

## GENERAL

LYDE, L. W. **Some frontiers of to-morrow, an aspiration for Europe.** viii and 120 pp. A. & C. Black, Ltd., London, 1915. 2s/5d. 7½ x 5.

This title covers problems of very great range and complexity about which Professor Lyde has managed to crowd an amazing number of essential facts within the compass of a small book. By basing himself on a strictly scientific foundation he is able to present impartial discussions on the international frontiers which will probably undergo modification. His contention that frontiers must be natural, that is to say, that they must conform to geographical conditions, contains in itself the basis of abiding peace settlements.

But in spite of his stimulating remarks, the problems he brings to the reader's attention often involve in themselves such conflicts of interests that whatever solution may be suggested is bound to cause adverse criticism. How far popular aspirations, mitigated by principles of economic geography, will be recognized as practical and applicable is questionable. As an instance, the maintenance of the Croatian saddle with the Hungarian kingdom is economically desirable to Magyars but may not appeal to Croatians. In the case of Balkan nationalities especially, with the *odium theologicum* constantly at play, the task of carving up territory in independent blocks is aggravated.

A just tribute to the assimilating power of France is paid in the pages dealing with Alsace-Lorraine. The author appropriately might have called attention to the fact that, since Neolithic days, the civilization of Germanic peoples has mostly taken its source in the more advanced culture of their southwestern neighbors. And today the Alsatian, in spite of his German speech, is at heart more of a Frenchman than a German.

The erroneous use of the term "race" creeps in occasionally, as when mention of the Albanians is made. The old Thraco-Illyrian strain which is thought to appear in the tall and fair Shkypetar might more appropriately be called Nordic. The type is met with along ancient highways of migrations in Europe. In Albania Professor Lyde's Thraco-Illyrian is merely a blend of Nordic and Alpine type.

BEGUINOT, AUGUSTO. **I distretti floristici della regione litoranea dei territori circumadriatici.** Ills. *Riv. Geogr. Italiana*, Vol. 23, 1916, No. 2-3, pp. 65-90; No. 4-5, pp. 177-193.

CHITTENDEN, H. M. **Resources in men.** *Diagr. Scientific Monthly*, Vol. 3, 1916, No. 1, pp. 87-93. [Includes a table and a diagram showing the proportion of population between specified age limits in Britain, Germany, France, and the United States. Article as a whole deals with the present belligerents' resources in men.]

HANNAH, I. C. **Arms and the map: A study of nationalities and frontiers.** viii and 261 pp.; map, index. T. Fisher Unwin, Ltd., London, 1915. 3s/6d. 8 x 5. [A readable presentation of the problems of irredentist lands and peoples. The author has worked skilfully into his book knowledge of peculiarly timely interest without carrying his statements to undue length or depth. Much that is relevant to European and colonial politics of the past twenty years is summed up with a fine gift of exposition. Nevertheless, the work contains little that has not been discussed extensively in books and periodicals during the past two years.]

HOWE, F. C. **The struggle for the Mediterranean.** *Scribner's Mag.*, Vol. 59, 1916, No. 5, pp. 621-624.

— **Jews, The, in the eastern war zone.** 120 pp. The American Jewish Committee, New York, 1916. 7½ x 5.

PHILLIPS, W. A. **Poland.** vi and 256 pp.; map, index, bibliogr. Henry Holt & Co., New York, [1916]. 50 cents. 7 x 5.

REINICKE, G. **Die Eisverhältnisse des Winters 1914-15 in ausserdeutschen europäischen Gewässern.** *Annal. der Hydrogr. und Marit. Meteorol.*, Vol. 44, 1916, No. 1, pp. 16-20.

REVELLI, PAOLO. **Una questione de geografia politica: L'Adriatico e il dominio del Mediterraneo orientale.** *Riv. Geogr. Italiana*, Vol. 23, 1916, No. 2-3, pp. 91-112.

SALOMON, L. **Étude des courants du Pas de Calais sur la ligne joignant Calais à Douvres.** *Annales Hydrogr.*, Ser. 2, Vol. 35, 1915, pp. 43-46. Service Hydrogr. de la Marine, Paris.

TUCKERMANN, WALTHER. **Die Sprach- und Kulturgrenzen in Rhein- und Maasland und in Belgien.** *Petermanns Mitt.*, Vol. 61, 1915, No. 12, pp. 462-464.

WARBURG, O. **Der kontinentale Wirtschaftsblock und die koloniale Landwirtschaft.** *Der Tropenpflanzer*, Vol. 19, 1916, No. 2, pp. 65-87.

WARD, R. DEC. **The weather factor in the great war: IV. October, 1915-February, 1916.** *Journ. of Geogr.*, Vol. 14, 1915-16, No. 10, pp. 373-384. [For previous instalments see the entry in the September *Review*, p. 237.]

## FRANCE

HARLÉ, EDOUARD. **La fixation des dunes de Gascogne.** Maps, diagrs. *Bull. du Comité des Trav. Hist. et Sci.: Sect. de Géogr.*, Vol. 29, 1914, pp. 181-224. Minist. de l'Instr. Publ. et des Beaux-Arts, Paris.

The author of this exceedingly interesting paper, after describing the position of "the dunes which border the ocean on the coast of Gascony," gives an outline of the attempts to fix these shifting sands, efforts extending over a period from 1787 to 1864.

The work was begun by Brémontier, Ingenieur des Ponts et Chaussées, on the borders of the Basin of Arcachon, where he instituted the method of planting pines with common broom and covering the area sown with pine branches, care being taken to prevent their being blown away by pinning them to the ground. In about six weeks the broom seeds produced plants six inches high, which were two feet high by the end of the season. They afforded excellent shelter to the pine seedling, barely four inches high, and under their protection the young pines flourished until at length they crowded out—literally starved and suffocated—the protectors of their infancy, and rose high, "defiant of the raging sand-storms."

This work had the wise attention of Napoleon, who, in 1801, placed it in charge of a commission composed of the chief engineer of roads and bridges (Brémontier), the administrator of forests (Guyet-Laprade), and three members of the Société des Sciences, Belles-Lettres et Arts of Bordeaux. The work consisted first of the formation of a coast protective dune over which the sand rarely blew, and the cultivation of several kinds of grasses and even the maritime pine on this protective dune. This littoral dune was built up by the use of paling and wattle fences, and, when it had reached somewhat near to the desired height and shape, grasses, such as marram and lyme grass, which are able to grow upwards through a slowly rising sand surface, were planted with success. Marram grass was set out in tufts in winter, and between the plants seeds of the marram grass and of a great variety of sand-loving plants were sown.

So effective has been all Brémontier's process that today thousands of acres are covered with thriving and profitable pines and the inhabitants now gain a livelihood more profitable and less precarious than that obtained by fishing in the stormy waters of the Bay of Biscay. The Basin of Arcachon, now protected from blown sands, has its cultivated beds of oysters and other sea-foods. Agriculture and stock-raising have followed in the wake of silviculture.

M. Harlé, living in Bordeaux, has had access to the abundant literature of his subject in the archives of the Conservation des Forêts and has made excursions through a number of years to his interesting field of study. He has used well his opportunities.

COLLIER COBB.

BIGOURDAN, —. **Distribution mensuelle de la nébulosité moyenne en France.** Maps, diagr. *La Nature*, No. 2232, 1916, July 8, pp. 27-29.

BLACHE, J. **Les vallées suspendues de la rive gauche du Grésivaudan.** *Bull. du Comité des Trav. Hist. et Sci.: Sect. de Géogr.*, Vol. 29, 1914, pp. 176-180. Minist. de l'Instr. Publ. et des Beaux-Arts, Paris.

BLIN, ERNEST. **Contribution à l'étude de la Seine et de ses affluents à travers les âges.** *Bull. du Comité des Trav. Hist. et Sci.: Sect. de Géogr.*, Vol. 29, 1914, pp. 155-167. Minist. de l'Instr. Publ. et des Beaux-Arts, Paris.

COQUIDÉ, EUGÈNE. **Quelques remarques sur le relief dans le nord de l'Île-de-France.** Ills. *Bull. du Comité des Trav. Hist. et Sci.: Sect. de Géogr.*, Vol. 29, 1914, pp. 259-262. Minist. de l'Instr. Publ. et des Beaux-Arts, Paris.

COT, D. **Rapport sur la reconnaissance hydrographique partielle de l'embouchure de la Loire, exécutée en 1910.** Map, diagrs. *Recherches Hydrogr. sur le Régime des Côtes*, No. 993, Vol. 19, 1916, pp. 1-12. Service Hydrogr. de la Marine, Paris.

COT, D. **Rapport sur la reconnaissance hydrographique de l'estuaire de la Seine, exécutée en 1913.** *Recherches Hydrogr. sur le Régime des Côtes*, No. 993, Vol. 19, 1916, pp. 83-98. Service Hydrogr. de la Marine, Paris.

DUHAMEL, H. **La première carte du Dauphiné par Jean de Beins.** Map. *La Géogr.*, Vol. 30, 1914-15, No. 6, pp. 437-442. [Date about 1617.]

FAUCHER, D. **La montagne de Crussol.** Diagrs., ills. *Bull. du Comité des Trav. Hist. et Sci.: Sect. de Géogr.*, Vol. 29, 1914, pp. 242-252. Minist. de l'Instr. Publ. et

des Beaux-Arts, Paris. [Physico-geographical study of an isolated mountain near Valence marking, as it were, the boundary between interior and Mediterranean influences in the Rhone valley.]

FICHOT, E. **Rapport sur la reconnaissance hydrographique de l'embouchure de la Gironde, exécutée en 1912.** Map. *Recherches Hydrogr. sur le Régime des Côtes*, No. 993, Vol. 19, 1916, pp. 12-82. Service Hydrogr. de la Marine, Paris.

GRIBAUDI, PIERO. **Il porto di Marsiglia e il canale Marsiglia-Rodano.** Maps. *Boll. della Reale Soc. Geogr. Italiana*, Vol. 5, 1916, No. 7, pp. 547-574. Rome.

JONES, J. E. **Lyon.** *Suppl. to Commerce Repts.*, Ann. Series, 1916, No. 5b, pp. 17-22. Bur. of Foreign and Domestic Commerce, Dept. of Commerce, Washington, D. C.

LA PORTE, F. **Contribution à l'étude des principales positions géographiques intéressant l'hydrographie française.** *Annales Hydrogr.*, Ser. 2, Vol. 35, 1915, pp. 1-41. Service Hydrogr. de la Marine, Paris.

LA PORTE, M. **Étude sur les plages de la côte sud de Bretagne, de Penmarch à la Loire.** Maps. *Recherches Hydrogr. sur le Régime des Côtes*, No. 993, Vol. 19, 1916, pp. 296-312. Service Hydrogr. de la Marine, Paris.

OSBORNE, J. B. **Havre.** *Suppl. to Commerce Repts.*, Ann. Series, 1916, No. 5b, pp. 1-17. Bur. of Foreign and Domestic Commerce, Dept. of Commerce, Washington, D. C.

PAWLOWSKI, AUGUSTE. **Le port du Havre et la crise des transports.** Diags. *La Nature*, No. 2230, 1916, June 24, pp. 411-416. [Illustrated by graphs and a plan of the port.]

PAWLOWSKI, AUGUSTE. **Les frets et la crise des transports maritimes.** Diags., ills. *La Nature*, No. 2223, 1916, May 6, pp. 289-293.

THACKARA, A. M. **France.** 15 pp. *Suppl. to Commerce Repts.*, Ann. Series, 1916, No. 5a. Bur. of Foreign and Domestic Commerce, Dept. of Commerce, Washington, D. C.

## AFRICA

### SUDAN AND UPPER GUINEA

B[ELTRAN Y] R[ÓZPIDE], R. **Las posesiones españolas del África occidental: Su situación política y económica en 1915.** *Rev. de Geogr. Colon. y Mercantil*, Vol. 13, 1916, No. 1-2, pp. 5-21. Real Soc. Geogr., Madrid. [The late internment of fugitive Germans from the Kamerun in the neutral territory of Muni has attracted attention to that little-known Spanish possession. Detailed information on the colony and on those of Fernando Pó and Río de Oro may be found in a memorial recently issued by the Spanish government, of which the article listed above is an abstract.]

DJIAN, (G.). **Vers le Tchad.** Map. *Bull. Trimestriel de la Soc. de Géogr. et d'Archéologie d'Oran*, Vol. 38, 1915, No. 3-4, pp. 318-370.

— **Gold Coast Colony, Trade of, in 1915.** *Board of Trade Journ.*, No. 1022, Vol. 93, 1916, June 29, pp. 89-92. [“From a report by the Comptroller of Customs at Accra, published in the *Gold Coast Government Gazette, Supplementary* (No. 1 of 1916).”]

HARDY, GEORGES. **Le bilan scientifique de l'Afrique Occidentale Française.** *L'Afrique Française*, Vol. 26, 1916, No. 1-2, pp. 3-26.

HOLLIS, A. C. **Sierra Leone: Report for 1915.** 33 pp. *Ann. Colonial Repts.* No. 888. London, 1916.

— **Imperial industry.** *An. Journ. of the African Soc.*, No. 60, Vol. 15, 1916, pp. 320-334. [“Vegetable oils and oil-producing substances form the staple export of West Africa. The magnitude of this export may be gaged by the fact that in 1913 its value amounted to nearly ten millions sterling. Of that amount palm oil and palm kernels accounted for over eight millions.” The industry has been the subject of a recent government investigation dealt with in the *Bull. of Imperial Inst.*, 1909, pp. 357-394, and in the “Report of Committee on Edible and Oil Producing Nuts and Seeds,” June, 1916, *Cd. 8247*, of which the article is an abstract.]

LUGARD, F. D. **Nigeria: Report for 1914.** 52 pp.; map. *Ann. Colonial Repts.* No. 878. London, 1916. [Includes a report on the administrative and judicial changes resultant on the amalgamation on January 1, 1914, of Northern and Southern Nigeria into a single government.]

MÉZIÈRES, BONNEL DE. **Reconnaissance à Tendirma et dans la région de Fati.** Map. *Bull. du Comité des Trav. Hist. et Sci.: Sect. de Géogr.*, Vol. 29, 1914, pp. 128-

131. Minist. de l'Instr. Publ. et des Beaux-Arts, Paris. [Archeological reconnaissance in riverine lake region of the Niger above Timbuktu.]

UNWIN, A. H. *The forester's profession in Nigeria*. Ills. *United Empire*, Vol. 7 (New Series), 1916, No. 3, pp. 212-215.

#### CONGO BASIN AND LOWER GUINEA

— **Angola, I commerci dell'.** *L'Africa Italiana*, Vol. 34, 1915, No. 11, pp. 297-302. Naples.

BADOLO, IGINIO. **Note sulle commerciale-economica del Distretto do Benguella.** 17 pp. [Boll.] *Direz. Gen. degli Affari Commerciali*, 1916, No. 2. Minist. degli Affari Esteri, Rome, 1916.

— **Benguella Railway, The.** *United Empire*, Vol. 7, N. S., 1916, No. 2, p. 176. [When completed this railroad, whose main objective is the Katanga copper and tin belts, will provide the shortest route from Europe to Central Africa. Linked up with the Rhodesian and Congo systems and the German "Zentrallandbahn" it will provide additional transcontinental communication. About 400 miles of the line have been opened to traffic.]

— **Congo, La neutralité du bassin conventionnel du.** Map. *Renseign. Colon.* (Suppl. à *l'Afrique Franç.*), 1916, No. 3, pp. 68-77.

GUILLEMAIN, KONSTANTIN. **Vegetationsformen in Katanga.** *Petermanns Mitt.*, Vol. 61, 1915, No. 12, pp. 474-475.

RENKIN, J. **L'avenir du Congo Belge.** *Renseign. Colon.* (Suppl. à *l'Afrique Franç.*), 1916, No. 3, pp. 61-68. [Translation of a lecture before the Royal Colonial Institute of London on Feb. 11, 1916.]

— **Ventos, Gráficos da frequência dos, no decénio de 1901 a 1910.** 12 pp.; diagrs. Apenso ao *Bol. Oficial da Província de Angola*. Dir. do Observatório Meteorol. e Magnético de Loanda. Loanda, 1915.

#### EAST AFRICA

DARLEY, HENRY. **Desiccation of East Africa.** *Journ. East Africa and Uganda Nat. Hist. Soc.*, Vol. 5, 1916, No. 10, pp. 99-102. [Remarks suggested by C. W. Hobley's paper on the "Alleged Desiccation of East Africa" (see review in the *May Review*, p. 394). The writer mentions phenomena that have come under his notice on the disappearance or diminution of water supplies both north and south of Abyssinia, which country he excludes from his observations. He says, for instance, "You can sit on the Marangule slopes and see almost to Abyssinia, a distance of fifteen to twenty days' march. This is absolutely waterless, with the exception of a few places in ancient *bondis*, where by digging you may obtain water. Within the last thirty years this was thickly inhabited. These inhabitants have now fled to the country sloping to the Nile where water is still obtainable."]

DEHÉRAIN, HENRI. **Addis-Ababa, résidence de l'empereur Ménélik, et son rôle dans l'exploration de l'Abyssinie.** *Bull. du Comité des Trav. Hist. et Sci.: Sect. de Géogr.*, Vol. 29, 1914, pp. 168-175. Minist. de l'Instr. Publ. et des Beaux-Arts, Paris.

DEHÉRAIN, HENRI. **Les Katamas dans les provinces méridionales de l'Abyssinie pendant le règne de l'empereur Ménélik.** *Bull. du Comité des Trav. Hist. et Sci.: Sect. de Géogr.*, Vol. 29, 1914, pp. 225-241. Minist. de l'Instr. Publ. et des Beaux-Arts, Paris. [The *katamas* are Abyssinian fortified posts in conquered or tributary territory.]

— **East Africa Protectorate: Report for 1914-15.** 34 pp.; map. *Ann. Colonial Repts.* No. 881. London, 1916.

KEABLE, ROBERT. **A city of the dawn.** With an introduction by A. C. Benson. xv and 244 pp.; ill.; Nisbet & Co., Ltd., London, 1915. 5s. 8 x 5½. [Vivid and sympathetic sketches of life at Mombasa.]

LAGANÀ, GINO. **Abissinia.** *L'Africa Italiana*, Vol. 34, 1915, No. 10, pp. 250-277. Naples.

LEGGETT, E. H. M. **The economic development of British East Africa and Uganda.** *Journ. Royal Soc. of Arts*, No. 3246, Vol. 63, 1915, Feb. 5, pp. 209-220. [Discussion, pp. 218-220.]

MERRIAM, C. H. **East Africa—game garden of the world: A review of Roosevelt and Heller's "Life Histories of African Game Animals."** Map, ill. *Amer. Museum Journ.*, Vol. 16, 1916, No. 3, pp. 145-153. [The book was reviewed in *Bull. Amer. Geogr. Soc.*, Vol. 47, 1915, pp. 190-192.]

ORDE-BROWNE, G. ST. J. **Mount Kenya and its people: Some notes on the Chuka tribe.** *Journ. of the African Soc.*, No. 59, Vol. 15, 1916, pp. 225-233. [Living on the wildest and most inaccessible slopes of Mount Kenya this minor tribe has until now retained many of its primitive characteristics.]

RIED, H. A. **Zur Anthropologie des abflusslosen Rumpfschollenlandes im nordöstlichen Deutsch-Ostafrika.** 295 pp.; diags., ill., bibliogr. *Abhandl. des Hamburgischen Kolonialinstituts*, Vol. 31, 1915. Hamburg. [Consists exclusively of discussion of crania and long bones.]

— **Usambara described.** *Times Weekly Edition*, No. 2,060, Vol. 40, 1916, June 23, p. 486. [Coastal regions bordering British East Africa.]

## ASIA

### RUSSIAN CENTRAL ASIA

BUSSE, WALTER. **Bewässerungswirtschaft in Turan und ihre Anwendung in der Landeskultur.** 326 pp.; maps, diags., ill. *Veröffentlichungen des Reichs-Kolonialamts Nr. 8.* Gustav Fischer, Jena, 1915.

That the German Colonial Office in the midst of the great war should publish a book on irrigation in Russian Turkestan offers a striking example both of German energy and foresight, and of the compelling force of geographical environment. Germany wants her own supply of cotton. Among her erstwhile colonies German Southwest Africa is the only one that offers much prospect of producing that useful fiber. But Southwest Africa is very dry, and no cotton can be raised without irrigation. Russian Turkestan is the only part of the world which has a climate at all similar to that of the former German colony, and which at the same time has done anything important in the way of cotton culture. Hence what is more natural than a book on irrigation in Turan?

The book is admirably written. The first section deals with the dry climate, whose long, hot, rainless summers have a mean temperature above 70° from May to September, with extreme maxima as high as 114°F. The second emphasizes the wonderful fertility and easy cultivation of the fine-grained yellow loess soil, which, however, is frequently injured by the accumulation of salt. Next come brief sections on the people and their methods of agriculture. The following chapter on irrigation contains many interesting details as to the technique of irrigation, the laws as to water rights, land tenure, and the like. Then comes the heart of the book, pp. 70-101, on "Cotton Culture and Colonization Policy," while the remaining 211 pages are devoted to a minute description of agriculture and irrigation in the various provinces.

The argument of the main section runs as follows: About 1880 Russia began to think seriously of manufactures and hence of cotton culture. That turned her eyes to the deserts and great rivers of Turkestan on the one hand and to America on the other. American upland cotton was successfully introduced into Turkestan, although the quality is not quite up to the American standard. Today half Russia's supply comes from her own desert oases, but half is not enough. Since Turkestan has millions of acres of wonderful soil, since four-fifths of the water of the great Amu and Syr Rivers is wasted, and since Russia has millions of peasants who want to migrate, why not bring water and peasants to the land and let them produce cotton for Russia's growing textile mills? Why not go farther? In Ferghana at the base of the Alai Mountains over 30 per cent of the cultivated land is devoted to cotton, while farther north in the province of Semirychensk cotton will not grow, but grain and cattle thrive. Why not have such transportation facilities that Ferghana can devote 80 or 90 per cent of its cultivable area to cotton and can be fed by Semirychensk?

Busse criticizes this official program. In the first place, Russia moves in a vicious circle, for, although she is poor in capital, she will not let foreign capital do the work. Secondly, the official program does not make due allowance for the deterioration of the soil and is likely to lead to grave economic disasters worse than those which our own South has experienced because of its reliance on a single crop. Thirdly, the Russian peasant does not understand irrigation and intensive agriculture, he does not like them, and he looks down on the native "Sarts" from whom he ought to learn their value. Moreover, he cannot stand the long, hot summer, which weakens him so much that he becomes lazy and cannot compete with natives. Therefore he had rather move up into the mountains or to Siberia than stay in the lowlands of Turkestan, and there is not much hope of his converting Turkestan into a genuine part of Russia. The hope of Turkestan, so Busse seems to think, is in increasing the irrigated areas by means of foreign capital and training the natives to cultivate cotton as an essential part of a rational rotation of crops.

ELLSWORTH HUNTINGTON.

KRIŠTOFOVIČ, A. **Les vestiges de l'existence du chêne dans la steppe Kirghize de Turgaj.** *Bull. de l'Acad. Impér. des Sci. [de Pétrograd]*, Ser. 6, 1915, No. 10, pp. 987-989. [In Russian.]

PRIGOROVSKIĬ, M. **Quelques faits nouveaux sur les dépôts terrestres tertiaires de Turgaj.** *Bull. de l'Acad. Imp. des Sci. [de Pétrograd]*, Ser. 6, 1915, No. 10, pp. 12, pp. 1265-1280. [In Russian.]

TAGANCEV, V. N., AND V. A. SILBERMÜNZ. **Sur la désagrégation désertique dans les glaciers des montagnes de Turkestan.** *Map. Bull. de l'Acad. Imp. des Sci. [de Pétrograd]*, Ser. 6, 1914, No. 14, pp. 1041-1052. [In Russian.]

#### SIBERIA

DIGBY, BASSETT. **Along a great Siberian river.** Ills. *Travel*, Vol. 27, 1916, No. 2, pp. 18-21 and 46-48. [Good general account of life in the small villages along the Lena River. The valley is a deep and narrow trench cut below the level of a vast trackless, forest-covered plateau, part of the *taiga* (see article by E. K. Reynolds in April number of *Review*, p. 256). Especially interesting is Vitimsk, a "dead" village opposite the inflow of the Vitim. It is almost without residents until late September, "when it is invaded by 10,000 thirsty miners from the Bodaibo gold workings, weighed down with a summer's deferred pay."]

DOROGOSTAJSKIĬ, V. C. **Rapport préliminaire sur une excursion dans les monts de Iablonoi exécutée en 1914.** *Bull. de l'Acad. Imp. des Sci. [de Pétrograd]*, Ser. 6, 1915, No. 5, pp. 401-420. [In Russian.]

HALL, H. U. **The Siberian expedition.** Ills. *Univ. of Pennsylvania Museum Journ.*, Vol. 7, 1916, No. 1, pp. 27-45. [Abstracted in the September *Review*, pp. 229-230.]

JOCHELSON, V. I. **Note sur la publication de ses travaux linguistiques, folkloristes et ethnographiques concernant les peuples du nord-est extrême de la Sibirie.** *Bull. de l'Acad. Imp. des Sci. [de Pétrograd]*, Ser. 6, 1915, No. 16, pp. 1697-1710. [In Russian.]

NANSEN, FRIDTJOF. **Sibirien, ein Zukunftsland.** x and 383 pp.; maps, diagrs., ill., index. F. A. Brockhaus, Leipzig, 1914. Mk. 10. 9½ x 6. [The English version was reviewed in *Bull. Amer. Geogr. Soc.*, Sept., 1915, p. 707.]

POPLAWSKA, H. **Aux limites du nord-ouest des steppes transbaïkaliennes (Esquisse phyto-géographique).** *Bull. de l'Acad. Imp. des Sci. [de Pétrograd]*, Ser. 6, 1915, No. 7, p. 587. [Brief note in Russian.]

SCHÖNEBECK, ALFRED. **Samfundsliv i Sibirien.** Ills. *Geografisk Tidskrift*, Vol. 23, 1915-16, No. 5, pp. 163-178. Copenhagen. [Life in Siberia.]

SUKAČEV, V., AND H. POPLAVSKAJA. **Recherches botaniques dans la zone litorale du lac Baïcal pendant l'été 1914.** Ills. *Bull. de l'Acad. Imp. des Sci. [de Pétrograd]*, Ser. 6, 1914, No. 17, pp. 1309-1328. [In Russian.]

#### CHINA

HSU, MONGTON CHIH. **Railway problems in China.** 184 pp.; map, bibliogr. *Columbia Univ. Studies in Hist., Econ. and Public Law*, Vol. 66, No. 2. Longmans, Green and Co., New York, 1915. \$1.50.

The railway in China has long been an instrument for political aggression on the part of foreigners. No nation in the world has been so harried in its economic growth by foreign powers as China; no account of the subject, therefore, can fail to take into consideration the politics involved in arranging a transportation system which is destined to alter the strategic as well as the industrial situation of the country.

The opposition of the Chinese to the introduction of railways melted away in 1895 at the close of the war with Japan, when officials and people were promptly convinced of the impossibility of defending the empire from attack without greater facilities for transporting troops. The conversion of the court to this new attitude brought upon China a host of proposals from Western nations to secure concessions for constructing its railways. In less than four years nineteen roads, involving a total length of more than 6,000 miles, had been granted to the agents of five nations. Happily for China most of these were paper schemes that never matured, as the powers concerned came into collision with each other over their respective spheres of interest in constructing the lines and exploiting the territory covered, but China itself remained helpless amid their controversies and did not escape from unfair contracts without heavy payments. The decade following the disastrous war with Japan involved the empire in so many loan agreements



with foreign capitalists as to be called the period of the "battle for concessions," when the financial profits accruing from the game of grab tempted many concerns to excesses that filled the Chinese with apprehension and helped to bring about the Boxer revolt.

During the decade which followed the Russo-Japanese war China slowly emerged from its former position of mechanical impotence and trained a small group of engineers who have proved themselves capable of constructing lines and producing the necessary equipment for running serviceable railways. The government has also become aware of the risk of national bankruptcy attending indiscriminate loans extorted and controlled by foreign syndicates, and has adopted, so far as possible, a policy of railroad nationalization. So profoundly is the life of China affected by this modern instrument of economic development that its attempt to wrest the regulation of the railways from the provinces served to precipitate the rebellion of 1911, as the struggle for concessions had brought on that of the fanatical Boxers.

It would be hard, perhaps, to find a more convincing illustration of the intimate relation between social and material progress and political geography than in the forty years of railroad history in China. No country in modern times has been so obviously the victim of its own ignorance and obduracy in resisting the necessary means of defending its own territory and promoting its commercial welfare by developing an adequate system of communications. Largely because of its lack of railways China has already lost its outlying frontiers and been reduced to financial servitude, which will at best long hamper its proper reorganization and may subject the country to direct control by foreigners.

Doctor Hsu's volume is admirably arranged and clearly expressed; however, in proportion to the facts there is too little discussion of the problems presented. The volume is also unfortunately marred by a cheap and inadequate sketch-map which is no credit to the publishers.

F. W. WILLIAMS.

ANDERSON, G. E. **Hongkong.** 7 pp. *Suppl. to Commerce Repts.*, Ann. Series, 1916, No. 52b. Bur. of Foreign and Domestic Commerce, Dept. of Commerce, Washington, D. C.

BROCKWAY, ALICE P. **A trip to the Orient.** 83 pp.; ill. The Griffith & Rowland Press, Philadelphia [1916]. 8 x 5½. [Leaves from a missionary's note book. The trip—Oct., 1914-May, 1915—is described from San Francisco via Yokohama and Nagasaki to Shanghai, thence via Hangchow up the Tsien-tang River to Kinwha, the author's destination, in the center of Che-kiang Province, where two months were spent. China was left by way of Shanghai, Canton, and Hongkong.]

HANSON, G. C. **China: Swatow.** *Suppl. to Commerce Repts.*, Ann. Series, 1916, No. 52a, pp. 1-12. Bur. of Foreign and Domestic Commerce, Dept. of Commerce, Washington, D. C. ["The prosperity of Swatow and its vicinity depends upon the sale of products of local origin among emigrants from this district who are working in places in the South Seas, such as the Straits Settlements, the Dutch East Indies, and the Federated Malay States, and upon the remittances these emigrants send to Swatow."]

KING, L. M. **Report for the year 1913 on the trade of Tachienlu.** 9 pp. *Diplomatic and Consular Repts.*, Ann. Series, No. 5561. London, 1916. [Abstracted in the September number, p. 230, under the title "Tachienlu, the Chinese Gateway to Tibet."]

PONTIUS, A. W. **China: Foochow.** *Suppl. to Commerce Repts.*, Ann. Series, 1916, No. 52a, pp. 12-22. Bur. of Foreign and Domestic Commerce, Dept. of Commerce, Washington, D. C.

REED, A. C. **Changsha and the Chinese.** Ills. *The Scientific Monthly*, Vol. 2, 1916, No. 3, pp. 239-259. [Changsha, which lies at the head of navigation on the Liang River, the right tributary of the Yan-tze-Kiang which it reaches through the large Tung Ting Lake, is the metropolis of Hunan, a mining and agricultural province.]

## PHYSICAL GEOGRAPHY

### METEOROLOGY AND CLIMATOLOGY

HUMPHREYS, W. J. **Wind velocity and elevation.** Diags. *Monthly Weather Rev.*, Vol. 44, 1916, No. 1, pp. 14-17.

KIMBALL, H. H. **Duration of twilight.** *Monthly Weather Rev.*, Vol. 44, 1916, No. 1, pp. 12-13. [Reprinted from the paper "Daylight Illumination and the Intensity and Duration of Twilight" published in *Trans. Illuminating Engineering Soc.*, Cleveland, Ohio, some time in 1916.]

ROLF, B. **Condensation upon and evaporation from a snow surface.** *Monthly Weather Rev.*, Vol. 43, 1915, No. 9, p. 466.

SIMPSON, G. C. **Electricity of atmospheric precipitation.** *Monthly Weather Rev.*, Vol. 43, 1915, No. 9, p. 445.

TALMAN, C. F. **Brief list of meteorological textbooks and reference books: A selection of works suitable for general, scientific, and university libraries in the United States.** 17 pp.; index. *U. S. Weather Bur. [Publ.] No. 512.* Washington, 1913.

## HUMAN GEOGRAPHY

### ECONOMIC GEOGRAPHY

#### *Production*

MOON, F. F., AND N. C. BROWN. **Elements of forestry.** xvii and 392 pp.; map, ills., index. J. Wiley & Sons, New York, 1914. \$2. 8½ x 5½.

The need of a concisely written book on the principles of forestry has been felt by those who are interested in presenting the subject of trees and forestry to college students and to the public at large. The present book seems to fill this want. It is well arranged, and the illustrations are good. The subject matter is arranged so as to define forestry, the need of forests at home and abroad. The tree is considered botanically from the viewpoints of parts and functions, characteristics, soil and moisture requirements, growth, light tolerance, and life. Silvics is concerned, as a topic, with the forest as a community and with the life history of the forest, while silviculture is concerned with the systems of reproduction and forest maintenance by cuttings, artificial and natural regeneration. The authors describe forest protection, give the essentials of forest mensuration, lumbering, wood utilization, wood technology, and wood preservation, and treat, in a concise way, forest economics and finance.

Of especial interest to geographers are the remaining pages on the forest regions of North America, illustrated by a map. The northern, southern, Rocky Mountain, and Pacific coast forests are considered in the remaining descriptive pages, while useful appendices and a glossary complete the book.

JOHN W. HARSHBERGER.

NEWBIGIN, M. I. **Tillers of the ground.** viii and 224 pp.; ills. Macmillan & Co., Ltd., London, 1910. 50 cents. 7 x 5.

Miss Newbigin's book is an attractive, readable little volume devoted to an exposition of the principles underlying agriculture and to the history of agricultural development. Though primarily written for the people of Great Britain, it is in good part a story of certain phases of agricultural development in America, especially in reference to the introduction of dates, figs, and alfalfa.

The work of the Chinese and Japanese two hundred years before Christ, the contributions of Herodotus and Pliny, of the U. S. Reclamation Service and Bureau of Plant Industry are all touched upon in passing, and the United States government bureaus are given special consideration and commendation. Sometimes the author seems carried away a bit by her enthusiasm and appears to stretch a point beyond the bounds of accuracy. For instance, it is a little extravagant to say that, under the touch of the Reclamation Service, "the whole desert blossoms like the rose, bursts forth into fruit and flowers, produces the wine which makes glad the heart of man, and the oil which causes his face to shine."

Yet the book contains much accurate, carefully selected material, put together in a telling and mind-opening way. It is a book that is worth while for any one interested in agriculture and the geography of modern agricultural development.

RICHARD ELWOOD DODGE.

ALBES, EDWARD. **Maize—the greatest of American food products.** Ills. *Bull. Pan American Union*, Vol. 43, 1916, No. 1, pp. 33-54.

BRETON, A. **Les engrais et la guerre.** Diagr., ills. *La Nature*, No. 2230, 1916, June 24, pp. 406-411.

DORRANCE, J. G. **Wood waste—I: The woods, the mill, and the factory.** Diagr., ills. *Scientific American*, Vol. 114, 1916, Apr. 8, pp. 382-383 and 390.

— **International Institute of Agriculture, The: Its organization, its work, its results.** 45 pp.; map. International Inst. of Agric., Rome, 1915.

MARSHALL, F. R., AND L. L. HELLER. **The woolgrower and the wool trade.** 32 pp.; diagr., ills. *U. S. Dept. of Agric. Bull No. 206.* Washington, D. C., 1915.

PAYEN, ÉDOUARD. **La soie: Sa production, sa consommation.** *L'Économiste*, No. 39, Vol. 2, 1915, pp. 396-398. Paris.

SALLIOR, P. **Le caoutchouc et la guerre.** Ills. *La Nature*, No. 2233, 1916, July 15, pp. 33-37.